

**Abstract**

Characteristics of a chemical or biological sample are detected using an approach involving light detection. According to an example embodiment of the present invention, an assaying arrangement including a light detector is adapted to

5 detect light from a sample, such as a biological material. A signal corresponding to the detected light is used to characterize the sample, for example, by detecting a light-related property thereof. In one implementation, the assaying arrangement includes integrated circuitry having a light detector and a programmable processor, with the light detector generating a signal corresponding to the light and sending the signal to the

10 processor. The processor provides an output corresponding to the signal and indicative of a characteristic of the sample.